### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000150

Address: 333 Burma Road **Date Inspected:** 09-May-2007

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Contractor: **Location:** Shanghai, China

**CWI Name:** Song Wei Min **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: PQR** Test

#### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

At 1300 hours, ZPMC resumed PQR HP200777 weld test. Caltrans QA Inspector witnessed ZPMC welder, Mr. Zhu Hai Ping perform shield metal arc welding (SMAW) in the 3G position. The welding consumable is identified as a 4.0 mm electrode, classification E9018M-H4R. Caltrans QA observed ZPMC QA Inspectors, Mr. Xu Jijin, and American Bridge/Fluor (ABF) subcontractor for quality control, Bureau Veritas Inspector, Mr. Song Wei Min monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and interpass temperatures. QA observed that the ZPMC testing center for ambient temperature and wind velocity appear to be in conformance with AWS D1.5, paragraph 3.1 and 4.14.3 requirements.

Caltrans QA inspector recorded welding parameters for a total of 7 weld passes, 32 through 38. Caltrans QA Inspector observed that the welder was welding over partially cleaned weld passes and, not chipping and cleaning weld termination during the changing of electrodes. It appeared that Mr. Song was aware of the questionable weld cleaning and no action was taken by Mr. Song. Caltrans QA verified that the welding parameters taken by ZPMC QC inspector, appeared to be accurate and in accordance with the contract documents. At 1600 hours ZPMC QA Inspector, Mr. Xu Jijin terminated welding after the completion of the 38th weld pass. Mr. Cheng stated that welding would be resumed tomorrow, May 10, 2007.

# WELDING INSPECTION REPORT

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## **Summary of Conversations:**

As identified within the contents of this report.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer